Report Date: January 13, 2016

## **Macrogroup: Intertidal Gravel Shore**

**Habitat Systems within Macrogroup:** 

MacrogroupName Intertidal Gravel Shore

Gravel Shore Macrogroup - Unknown Habitat System (i.e. Macrogroup)

High Intertidal Lower Intertidal Mid-Intertidal

CCCN Associated With This Habitat

**Description:** This Macrogroup includes sediment textures/ size classes ranging from pebbles to boulders. Adopted from

CMECS Substrate Components. This category is equivalent to CMECS Subtrate Class-Unconsolidated shore,

Substrate-Gravel. This includes particle size gravel, granule, pebble, cobble, and boulder.

GCN Associated \	Nith This Habitat	Total SGCN:	1:	1	2: 1	9 3:	15		
Class	Asteroidea (Sea Stars)				SG	iCN Ca	ategory		
Species	Asterias rubens (Common Sea Star)					2			
Species	Crossaster papposus (Common Sun Star)					2			
Species	Asterias forbesi (Forbes's Starfish)					2			
Species	Stephanasterias albula (White Sea Star)					2			
Class	Aves (Birds)				SG	CN Ca	ategory		
Species	Haematopus palliatus (American Oystercatcher)					3	,		
Species	Bucephala islandica (Barrow's Goldeneye)					1			
Species	Pluvialis squatarola (Black-bellied Plover)					3	,		
Species	Nycticorax nycticorax (Black-crowned Night-heron)					2			
Species	Calidris alpina (Dunlin)					3	,		
Species	Ardea herodias (Great Blue Heron)					2			
Species	Tringa melanoleuca (Greater Yellowlegs)					3	,		
Species	Calidris minutilla (Least Sandpiper)					3	}		
Species	Egretta caerulea (Little Blue Heron)					3	}		
Species	Clangula hyemalis (Long-tailed Duck)					3	}		
Species	Arenaria interpres (Ruddy Turnstone)					2			
Species	Calidris alba (Sanderling)					2			
Species	Calidris pusilla (Semipalmated Sandpiper)					2			
Species	Limnodromus griseus (Short-billed Dowitcher)					3	}		
Species	Egretta thula (Snowy Egret)					3			
Species	Numenius phaeopus (Whimbrel)					2			
Class	Bivalvia (Marine And Freshwater Molluscs)				SG	iCN Ca	ategory		
Species	Mytilus edulis (Blue Mussel)					3	}		
Species	Crassostrea virginica (Eastern Oyster)					3	}		
Species	Mya truncata (Gaper Clam)					3			
Species	Mercenaria mercenaria (Hard-shelled Clam)					3	}		
Species	Mya arenaria (Softshell Clam)					3	,		
Class	Echinoidea (Sea Urchins)				SG	CN Ca	tegor		
Species	Strongylocentrotus droebachiensis (Green Sea Urchin)					2			
Class	Gastropoda (Aquatic And Terrestrial Snails)				SG	iCN Ca	ategory		
Species	Boreotrophon clathratus (Clathrate Trophon)					2			
Species	Boreotrophon truncatus (Murex)					2			
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Species	Limneria undata (Wavy Lamellaria)	3		
Class	Holothuroidea (Sea Cucumbers)	SGCN Category		
Species	Cucumaria frondosa (Orange-footed Sea Cucumber)	2		
Species	Psolus fabricii (Psolus)	2		
Species	Psolus phantapus (Psolus)	2		
Species	Thyonidium drummondii (Sea Cucumber)	2		
Class	Ophiuroidea (Brittle Stars)	SGCN Category		
Species	Gorgonocephalus arcticus (Northern Basket Starfish)	2		
Class	Rhynchonellata (Brachiopods)	SGCN Category		
Species	Terebratulina septentrionalis (Lamp Shell)	2		

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**Macrogroup: Intertidal Gravel Shore** 

#### **Stressors Associated With This Macrogroup**

IUCN Level 2 Threat Name: Agricultural and Forestry Effluents

**Notes:** Though this threat can be reduced with the implementation of best management pratices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor

IUCN Level 2 Threat Name: Commercial and Industrial Areas

**Notes:** Development along gravel shores introduces foot traffic, pets, development and trash to intertidal areas that can reduce habitat area and impinge on biological habitats

IUCN Level 2 Threat Name: Commercial and Industrial Areas

**Notes:** Shoreline development can introduce foot and vehicle traffic, pets, noise, light, and trash that can degrade habitat area and functions

IUCN Level 2 Threat Name: Domestic and Urban Waste Water

**Notes:** Though this threat can be reduced with the implementation of best management pratices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor

IUCN Level 2 Threat Name: Fishing and Harvesting of Aquatic Resources

Notes: Harvesting of species in this habitat or accessing subtidal fishing areas by traveling over this habitat

**IUCN Level 2 Threat Name:** Habitat Shifting or Alteration

Notes: Sea level rise will change the vertical zonation of this habitat

IUCN Level 2 Threat Name: Housing and Urban Areas

**Notes:** Housing along gravel shores introduces foot traffic, pets, development and trash to intertidal areas that can reduce habitat area and impinge on biological habitats

IUCN Level 2 Threat Name: Housing and Urban Areas

**Notes:** Shoreline development can introduce foot and vehicle traffic, pets, noise, light, and trash that can degrade habitat area and functions

**IUCN Level 2 Threat Name:** Industrial and Military Effluents

**Notes:** Though this threat can be reduced with the implementation of best management pratices, runoff, oil spills, water uptake and discharge, and other industrial acitivites can lead to poor water quality, and reduced fitness and/or mortality, especially during

IUCN Level 2 Threat Name: Invasive Non-native-Alien Species-Diseases

**Notes:** e.g. Green crab appears to be a voracious predator in this habitat; encrusting invasive tunicates are also likely common and disruptive to the natural community

**IUCN Level 2 Threat Name:** Recreational Activities

**Notes:** Use of gravel shores introduces foot traffic, pets, development and trash to intertidal areas that can reduce habitat area and impinge on biological habitats

**IUCN Level 2 Threat Name:** Shipping Lanes

Notes: Dredging associated with harbors

IUCN Level 2 Threat Name: Tourism and Recreational Areas

**Notes:** Development along gravel shores introduces foot traffic, pets, development and trash to intertidal areas that can reduce habitat area and impinge on biological habitats

**IUCN Level 2 Threat Name:** Tourism and Recreational Areas

**Notes:** Shoreline development can introduce foot and vehicle traffic, pets, noise, light, and trash that can degrade habitat area and functions

## **Habitat Conservation Actions:**

Relevant conservation actions for this habitat are assigned within broader habitat groupings in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-15. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

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### **Species Conservation Actions:**

Conservation actions that may benefit species associated with this habitat can be found in Maine's 2015 Wildlife Action Plan: Element 1, Table 1-3. Click on the species of interest to launch a species based report summarizing relevant conservation actions and associated habitats.

The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.